Tax Reform, U.S. Investment and Job Growth: Does Cash Flow Matter?

By
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Testimony submitted for the record for the hearing on
"Manufacturing and Tax Reform"
Committee on Ways and Means
U.S. House of Representatives

July 19, 2012

Executive Summary

Cash Flow, U.S. Investment and Jobs: New academic research provides evidence of the strong link between investment and cash flow; a dollar of current and prior-year cash flow is associated with $0.32 of additional investment for firms that are least likely to face difficulty in raising money in capital markets and with $0.63 of new investment for firms likely to face constraints. These results have implications for U.S. investment and job growth since ACCF research shows that each $1 billion in new investment is associated with an additional 23,300 jobs.

Accelerated Depreciation, the Cost of Capital, U.S. Investment and Jobs: If accelerated and bonus depreciation for equipment is repealed and replaced with economic depreciation which is generally longer than the current Modified Accelerated Cost Recovery System (MACRS), the cost of capital for new equipment will rise and investment is likely to decline. The benefit of MACRS and bonus depreciation is its positive impact on cash flow, which occurs immediately as the investment is put in place. If, as seems likely, higher hurdle rates were to cause U. S. investment in equipment (which averaged $1.1 trillion in 2011) to decline, there would be a significant negative impact on employment.

Role of Oil and gas Industry in U.S. Economic Growth: In the last 4 years, the U.S. oil and gas sector has been one of the few bright spots in terms of investment and job growth. Maintaining a viable, growing domestic energy industry can help strengthen U.S. economic recovery. In addition, other U.S. industries such as steel, chemical and plastics production have benefited from the energy boom, especially from reduced prices for natural gas.

Tax Reform and U.S. Energy Investment: Several tax reform proposals put forward in the last several years eliminate accelerated and bonus depreciation, LIFO and other deductions applicable to capital intensive industries, including oil and gas, while lowering the corporate income tax rate. As a new report by the Progressive Policy Institute notes, strong domestic investment by U.S. oil and gas companies in 2011 was due in part to outlays that would be classified as intangible drilling costs and geological and geophysical expenses. If IDCs had to be depreciated rather than deducted or, in the case of G&G, amortized over longer periods, it is likely that less investment would have occurred in the oil and gas industry and fewer new jobs would have been created in the U.S.

Conclusions: As policymakers contemplate fundamental tax reform, they need to weigh carefully the possible consequences of eliminating accelerated depreciation and other provisions which affect the cash flow from new investments and slow the payback period in order reduce the corporate income tax rate. It may be well to consider "paying for" corporate and business income tax rate reductions with cuts to entitlements for upper income individuals (as suggested in the Bowles/Simpson tax reform plan) rather than eliminating proven investment provisions such as accelerated depreciation that enhance growth and further, consider even more powerful approaches to tax reform such as a consumed income tax where all investment is expensed.

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Introduction

Chairman Camp, Ranking Member Levin, and members of the Committee, my name is Margo Thorning, senior vice president and chief economist, American Council for Capital Formation (ACCF),* Washington, D.C. I am pleased to submit this testimony for the hearing record to discuss how tax reform, including reducing the corporate income tax and eliminating provisions in the current tax code which reduce the cost of capital for new investment may impact key sectors of the U.S. economy including manufacturing and the energy sector.

The American Council for Capital Formation represents a broad cross-section of the American business community, including the manufacturing and financial sectors, Fortune 500 companies and smaller firms, investors, and associations from all sectors of the economy. Our distinguished board of directors includes cabinet members of prior Democratic and Republican administrations, former members of Congress, prominent business leaders, and public finance and environmental policy experts. The ACCF is celebrating over 30 years of leadership in advocating tax, regulatory, environmental, and trade policies to increase U.S. economic growth and environmental quality.

Background

Some in the business community support giving up current tax code provisions such as accelerated depreciation, Section 199 and other provisions that reduce the cost of capital for new investment in exchange for a reduction in the corporate income tax rate. For example, testimony

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*Founded in 1973, the *American Council for Capital Formation is a nonprofit, nonpartisan organization advocating tax, energy, regulatory and environmental policies that facilitate saving, investment, economic growth and job creation. For more information about the Council or for copies of this testimony, please contact the ACCF, 1750 K Street, N.W., Suite 400, Washington, D.C. 20006-2302; telephone: 202.293.5811; fax: 202.785.8165; e-mail: info@accf.org; website: www.accf.org*

** Submitted for the record for the Committee on Ways and Means hearing held on July 19, 2012

by Henry W. Gjersda of 3M at the July 19 hearing supports repealing accelerated and bonus depreciation and Section 199 (the deduction established in 2004 to help U.S. manufacturers) in exchange for a substantial reduction in the corporate income tax rate.[1] Other witnesses, including Diane Dossin of Ford Motor Company and Ralph Hardt of Jagemann Stamping Company, support reducing the tax rate on business income but want to retain accelerated depreciation and other provisions used by capital intensive companies.[2] Another witness, Heather Boushey of Center for American Progress Action Fund recommends eliminating cost recovery provisions used by domestic energy producers to help pay for corporate tax rate reduction, although she also clearly suggests that tax reform should not disadvantage manufacturers and in fact that tax policy should focus on "supporting our manufacturing base". [3]

Given the weakness of the U.S. GDP growth, the unemployment rate remaining above 8 % and real non-residential investment still 6.5% below the 4th quarter of 2007, policymakers need to be sure that tax reform proposals will help, rather than hinder, new investment and economic growth. Therefore, as policymakers contemplate tax reform it seems appropriate to carefully consider how various approaches may impact overall U.S. investment. For example, the National Commission on Fiscal Responsibility and Reform (Bowles/Simpson) calls for broadening the tax base by eliminating virtually all tax deductions and credits used by both corporations and individuals, including those which reduce the cost of new investment in order to pay for reducing corporate and individual income tax rates.

A key question is how reducing cash flow to capital intensive industries by eliminating provisions such as accelerated depreciation and Section 199 and other provisions will impact U.S. investment and economic growth. Another important question is how eliminating provisions used by the U.S. energy sector such as lengthening the period for amortizing geological and geophysical expenses and deducting intangible drilling costs will impact the cost of capital and new investment in the oil and gas industry. In the last 4 years, the U.S. oil and gas sector has been one of the few bright spots in terms of investment and job growth so maintaining a viable, growing domestic energy industry can help strengthen U.S. economic recovery. In addition, other U.S. industries such as steel, chemical and plastics production have benefited from the energy boom, especially from reduced prices for natural gas.[4] Thus, increasing the cost of finding and developing domestic oil and natural gas will reduce investment and could also lead to more imported oil.

How Important is Cash Flow to Investment?

Over the past three decades, economics and finance experts have examined the question of whether financial variables such as cash flow and cash stocks have a significant effect on

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[1] see http://waysandmeans.house.gov/UploadedFiles/Gjersdal_Testimony.pdf

[2] http://waysandmeans.house.gov/UploadedFiles/Ford_Testimony.pdf and http://waysandmeans.house.gov/UploadedFiles/Hardt_Testimony.pdf

[3] see testimony by Heather Boushey of the Center for American Progress Action Fund at http://waysandmeans.house.gov/UploadedFiles/Boushey_Testimony.pdf

[4] http://articles.businessinsider.com/2012-03-19/markets/31208642_1_natural-gas-prices-steel-industry and http://online.wsj.com/article/SB10001424052702304331204577352161288275978.html and http://www.nytimes.com/2012/04/25/business/energy-environment/ohio-steel-mills-expand-to-meet-demand-in-energy-and-auto-industries.html and http://www.economist.com/node/21558591

investment. Some studies conclude that cash flow is mainly relevant for situations in which capital market imperfections exist and access to external debt and equity is costly.

Numerous other economic analyses and surveys have concluded that financial factors are important in determining investment levels. For example, a new analysis by Dartmouth College professors Jonathan Lewellen and Katharina Lewellen (L&L) provides evidence of the strong link between investment and cash flow.[5] Using an improved measure of cash flow and data from Compustat for 1800 firms per year from 1971-2009, L&L's results show that a dollar of current and prior-year cash flow is associated with $0.32 of additional investment for firms that are least likely to face difficulty in raising money in capital markets. For firms likely to face capital market constraints, each additional dollar of cash flow is associated with $0.63 of new investment. L&L's results have significant implications for U.S. investment and job growth because historical data show that each $1 billion dollars of new investment is associated with an additional 23,300 additional jobs in the U.S. (see Figure 1).

Additional support for the important role of cash flow in stimulating investment is found in a new report by the Joint Committee on Taxation.[6] The new report "Background and Present Law Relating to Manufacturing Activities Within the United States" concludes that:

> "However, for the most part, the economic literature on tax policy and investment does lean toward the conclusion that changes in taxes do have a noticeable impact on investment. A well-known survey of the literature, for example, concluded that investment was highly responsive to changes in the cost of capital.[270] One study looking at the period from 1953 to 1988, during which time accelerated depreciation and investment tax credit provisions were both enacted and repealed, found that tax policy had a strong effect on the level of investment, especially for machinery and equipment.[271] The authors also provided evidence that suggests firms with lower net cash flows, which may be more liquidity-constrained, are more responsive to changes in the cost of capital.[272] If this is true, then firms with less access to capital markets are particularly sensitive to changes in tax incentives for investment. Moreover, insofar as tax changes affect both net cash flows and the user cost of capital, some economists have found that the cash-flow effect is stronger.[273] Recent research on the bonus depreciation provisions enacted in 2002 and 2003 found a noticeable impact of tax incentives on investment in capital goods.[274]"

Previous economic analyses also support the idea that cash flow is an important determinant of investment. For example, a 1998 empirical analysis by Professors Gilchrist and Himmelberg concludes that for the average firm in their sample, cash flow and cash stocks raise the overall response of investment to an expansionary shock by 25% relative to a baseline case where financial frictions (capital market imperfections) are zero.[7] They note that "Consistent with

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[5] http://mba.tuck.dartmouth.edu/pages/faculty/jon.lewellen/docs/Investment%20and%20cashflow.pdf
Jonathan Lewellen and Katharina Lewellen, "Investment and Cash Flow: New Evidence", January 2012, working paper.

[6] https://www.jct.gov/publications.html?func=startdown&id=4473, page 87.

[7] Simon Gilchrist and Charles Himmelberg, "Investment, Fundamentals and Finance", NBER Working Paper 6652, see http://www.nber.org/tmp/22969-w6652.pdf

theory, small firms and firms without bond ratings show the strongest response to financial factors…. Because bond-rated firms account for 50% of aggregate manufacturing investment, our results suggest that the overall amplification of manufacturing investment {from cash flow and cash stocks} is somewhat less than 25%."

Similarly, a recent analysis of large number of Swedish firms during the 1989-2005 periods concludes that cash flow has a significant impact on investment and the effect is particularly strong for constrained firms, especially during recessions.[8]

To summarize, mounting recent evidence suggests a strong correlation between available cash flow and new investment, both for firms which are constrained in terms of access to capital markets and those which are unconstrained.

Accelerated Depreciation, the Cost of Capital, U.S. Investment and Job Growth

If accelerated depreciation for equipment is repealed and replaced with economic depreciation which is generally longer than the current Modified Accelerated Cost Recovery System (MACRS), the cost of capital for new equipment will rise and investment is likely to decline, relative to the baseline forecast. The benefit of MACRS is its positive impact on cash flow, which occurs immediately as the investment is put in place. As noted above, there is a direct correlation between available cash flow and new investment and thus retaining or enhancing MACRS (e.g. by retaining bonus depreciation) will increase new investment, while reducing cash flow by eliminating MACRS can be expected to reduce new capital investment.

Further, in an increasingly uncertain world in which markets, demand and production costs can shift almost overnight, the rapid payback from MACRS depreciation substantially reduces the risk premium for investment in equipment. For long-term investments which take many years to plan and complete, the impact of MACRS on hurdle rates and cash flow may be particularly important as profit expectations may have changed significantly by the time the project comes on line. While a lower corporate income tax rate would also make investment attractive, if MACRS and other provisions that increase the cash flow from investment are repealed, it seems likely that the slower payback period will raise the hurdle rates and slow the productivity enhancing investment in new equipment.

If higher hurdle rates were to cause U. S. investment in equipment (which averaged $1.1 trillion in 2011) to decline, there would be a significant negative impact on employment since each $1 billion in investment is associated with 23,300 new jobs. In addition, reducing corporate income tax rates benefits "old capital" and provides a windfall to previous investments. Thus, to the extent that the rate reduction is "paid for" by repealing accelerated cost recovery provisions, new investment will be slowed, exactly the opposite result that policymakers would want to achieve.

[8] Ola Melander, "The Effect of Cash Flow on Investment: An Empirical Test of the Balance Sheet Channel", see http://www.riksbank.se/upload/dokument_riksbank/kat_publicerat/workingpapers/2009/wp228.pdf

- **Has Bonus Depreciation Helped to Stimulate the U.S. Economy**?

Since the 4th quarter of 2007, which marks the beginning of the recession, through the 2nd quarter of 2012, real U.S. equipment investment has increased by 2.4%, from $1.1 trillion to $1.2 trillion. Given the weakness of growth in GDP and consumer demand during this period (real GDP growth has averaged only 0.24% and real personal consumption expenditures increased by a total of only 2.4% during the past 4 years), it seems likely that accelerated and bonus deprecation have played a major role in sustaining investment in equipment. In fact, if bonus depreciation were made permanent, and thus could be incorporated into the planning for all future projects, we would expect to see an even greater boost to domestic investment. Thus, tax policies such as repeal of MACRS, Section 199 and bonus depreciation would reduce the cash flow from new investment and could have negative consequences for growth in investment, GDP and employment.

U.S. Economic Recovery, Tax Reform and Investment by the U.S. Energy Industry

- **The Role of the Energy Industry in U.S. Economic Recovery**

For the last several years**,** personal income and job growth in major energy producing states such as Texas, Oklahoma, Montana, Wyoming, North and South Dakota has been much greater than in other states (see Figure 2). In addition, a new analysis by the Progressive Policy Institute, "*Investment Heroes: Who's Betting on America's Future*" notes that in 2011, four of the top ten non-financial companies investing in the U.S. were oil and gas companies (see Table 1)[9]. These four companies, Exxon Mobil, Occidental Petroleum, ConocoPhillips and Chevron, invested a total of $28.3 billion domestically in 2011. As noted above, historically each $1 billion increase in investment is associated with an additional 22,300 jobs in the U.S. Thus, the $28.3 billion of investment by the four oil and gas companies may have produced over 600,000 new jobs in 2011.

The PPI report notes that most of the U.S. capital expenditures by energy companies consisted of production and exploration costs, which includes building out oil and natural gas pipelines and exploratory costs for new drilling sites. The report concludes "Despite any environmental concerns, the fact remains that such large amounts of domestic investment by these individual companies have the ability to prop up local area economies while meeting the realities of increased power demand."[10]

- **Tax Reform and U.S. Energy Investment**

As mentioned above, several of the tax reform proposals put forward in the last several years, including the National Commission on Fiscal Responsibility and Reform (Bowles/Simpson) eliminate accelerated depreciation, bonus depreciation, last in-first out (LIFO) accounting and other deductions used by both capital intensive and other industries while lowering the corporate

[9] http://progressivepolicy.org/wp-content/uploads/2012/07/07.2012-Mandel_Carew_Investment-Heroes_Whos-Betting-on-Americas-Future.pdf

[10] Ibid, p.5.

income tax rate.[11] The President's Framework for Business Tax Reform, released in 2012, would eliminate or curtail many current law tax provisions which reduce the cost of capital for new investment such as accelerated depreciation, deduction for interest expense, LIFO as well as provisions applicable to the oil and gas industry.[12] For example, the President's plan calls for eliminating expensing for intangible drilling costs (IDCs), requiring such costs to be depreciated over time. When companies drill for oil or gas, they incur IDCs which are largely the labor costs of locating and drilling wells. IDCs are costs that cannot be recovered as they have no salvage value (in contrast to the drill pipe and casing itself, which is a "tangible asset" and is subject to depreciation). It is noteworthy that all other natural resource industries (e.g., minerals and coal production) have almost precisely the same rules as apply to oil and gas and other industries such as software development and pharmaceuticals are able to expense research and development costs. In addition, the President's FY 2013 budget also calls for increasing the amortization period for geological and geophysical costs (G&G). G&G expenses include the costs incurred for geologists, seismic surveys, and the drilling of core holes; like IDCs, they have no salvage value.[13] Further, the President's FY 2013 budget would repeal Section 199 for only oil and gas companies, leaving it in place for all other companies that manufacture, produce, extract or grow items in the U.S. {Section 199 (c)}.

Given the importance of cash flow to investment spending, policymakers need to weigh carefully the impact of repealing current law provisions that reduce the cost of capital for new investment. As the new report by the Progressive Policy Institute notes, the strong domestic investment by U.S. oil and gas companies in 2011 was due in part to outlays that would be classified as intangible drilling costs and G&G. If IDCS had to be depreciated rather than deducted or, in the case of G&G, amortized over longer periods, it is likely that less investment would have occurred in the oil and gas industry and fewer new jobs would have been created in the U.S.

Tax Reform to Promote Saving and Investment and Job Growth

Over the years, many economic analyses have estimated that if the U.S. switched to a consumed income tax in which all investment was expensed, investment and economic growth would be enhanced. In an attempt to understand how such a system would have impacted the U.S. economy had it been in place in the 1991-2004 periods, Dr. Allen Sinai, president and chief global economist of Decision Economics, used his large scale macroeconomic model to simulate the impact of a consumed income tax compared to the federal tax code in effect in 2001. The simulation modeled a system in which all saving is tax exempt, all new investment is written off in the first year, and interest expense for business and individuals is not tax deductible. The consumed income tax simulation shows strong increases in GDP, investment, employment, and federal tax receipts compared to the baseline forecast. If the consumed income tax system had been in place starting in 1991, GDP would have been 5.2 percent higher, consumption and investment would have been greater, and employment higher by over 140,000 jobs per year by 2001 (see Table 2). In addition, federal tax receipts would have been $428.5 billion larger in 2001 compared to the baseline forecast.

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[11] http://www.fiscalcommission.gov/sites/fiscalcommission.gov/files/documents/TheMomentofTruth12_1_2010.pdf

[12] http://www.treasury.gov/resource-center/tax-policy/Documents/The-Presidents-Framework-for-Business-Tax-Reform-02-22-2012.pdf

[13] http://www.treasury.gov/resource-center/tax-policy/Documents/General-Explanations-FY2013.pdf

Conclusions

As policymakers contemplate fundamental tax reform, they need to weigh carefully the possible consequences of eliminating accelerated depreciation and other provisions which affect the cash flow from new investments and slow the payback period in order reduce the corporate income tax rate. It would be particularly ironic if the choices made in tax reform actually harmed versus increased economic growth. Further, as many practitioners will remember, the cut in the corporate rate to 34% in 1986 only survived five years, so there is no guarantee that a future rate cut will endure. It may be well to consider "paying for" corporate and business income tax rate reductions with cuts to entitlements for upper income individuals (as suggested in the Bowles/Simpson tax reform plan) rather than eliminating proven investment provisions such as accelerated depreciation that enhance growth. If we are to embark on the enormously complex and difficult task of comprehensive tax reform, it is important to maximize the economic benefits from that exercise. Thus we also recommend considering even more powerful approaches to tax reform such as a consumed income tax where all investment is expensed.

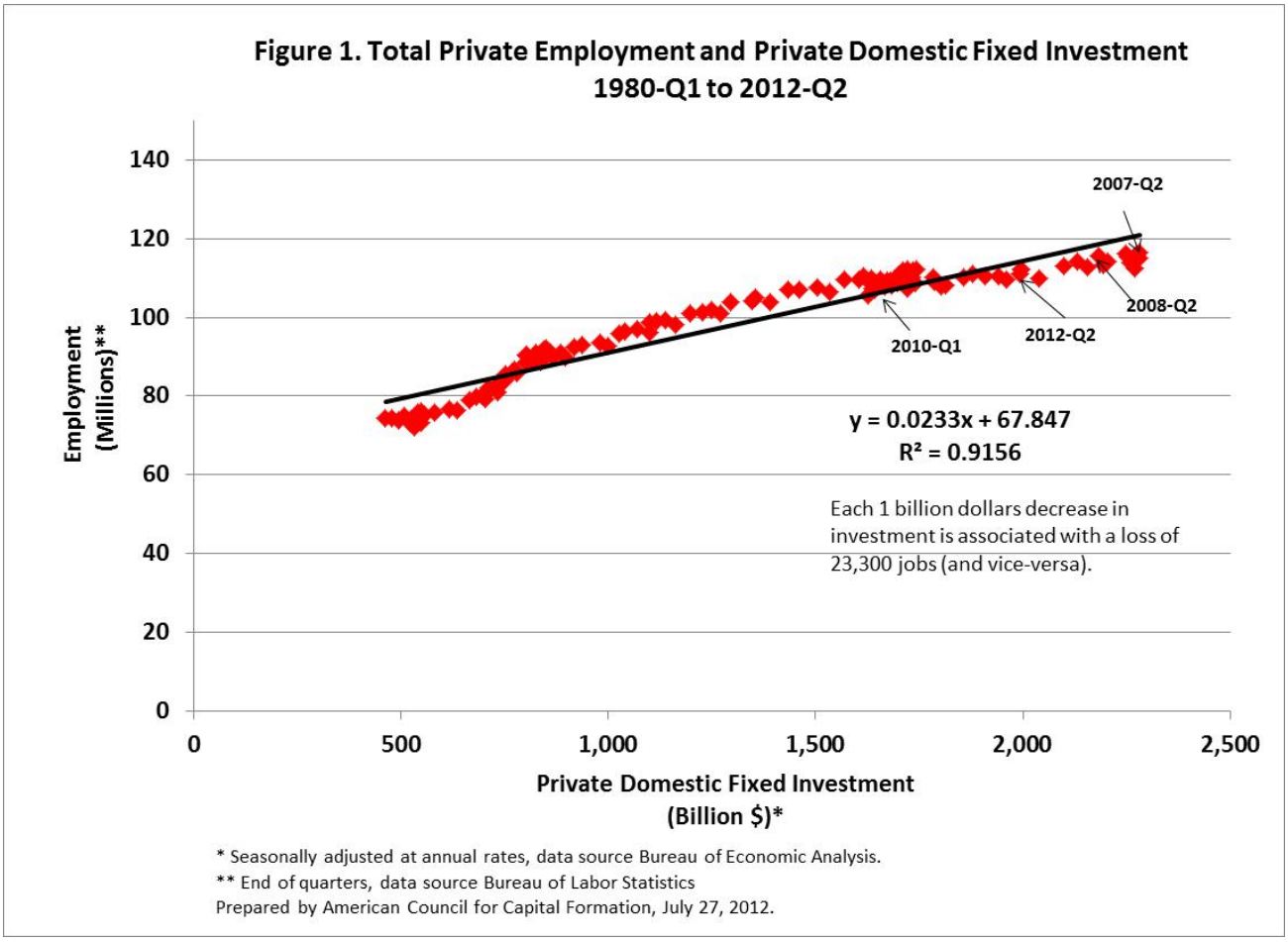
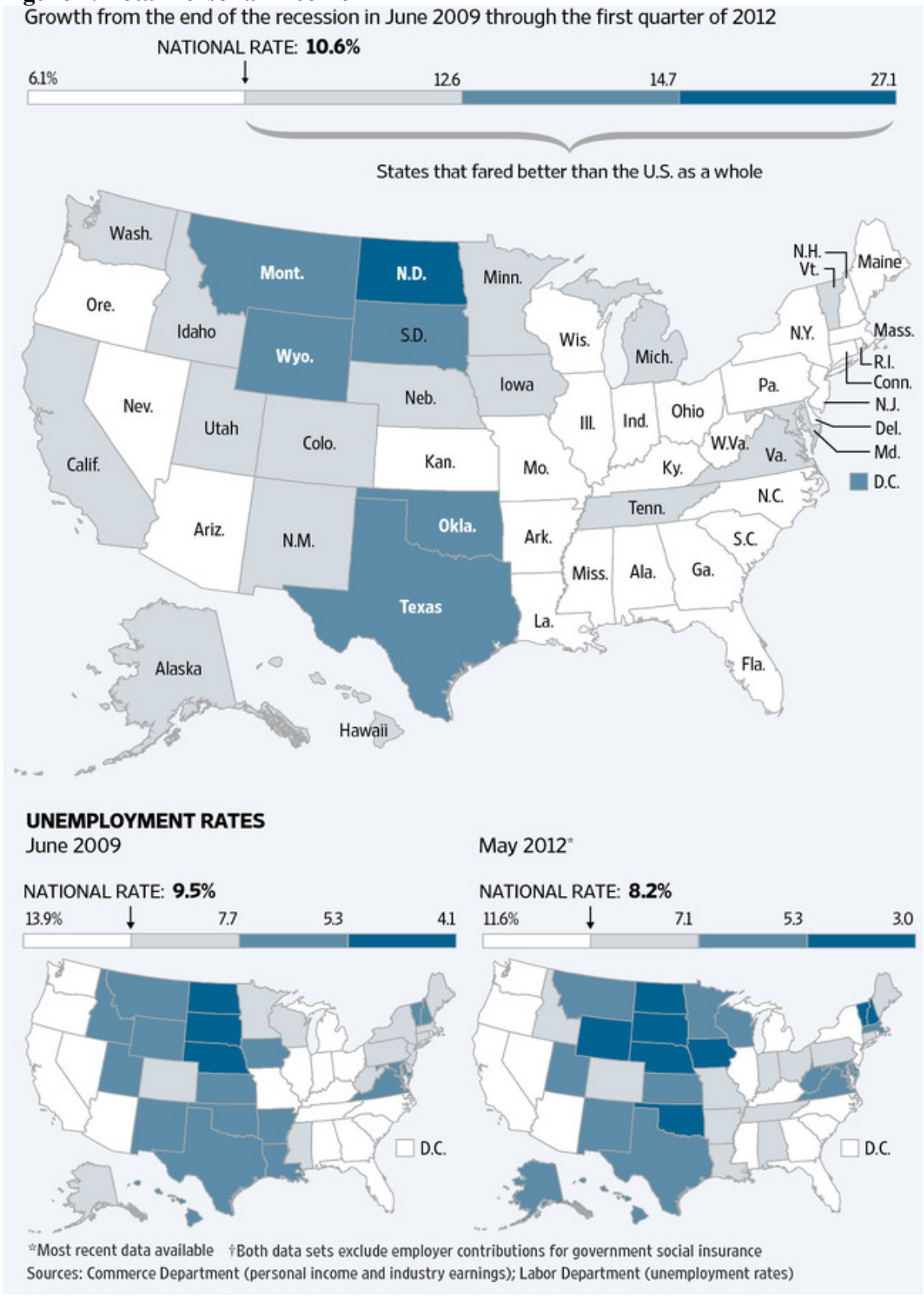


Figure 1. Total Private Employment and Private Domestic Fixed Investment
1980-Q1 to 2012-Q2
Employment (Millions)**
140
120
100
80
60
40
20
0
0
500
1,000
1,500
2,000
2,500
Private Domestic Fixed Investment (Billion $)*
2007-Q2
2008-Q2
2010-Q1
2012-Q2
y = 0.0233x + 67.847
R² = 0.9156
Each 1 billion dollars decrease in investment is associated with a loss of 23,300 jobs (and vice-versa).
* Seasonally adjusted at annual rates, data source Bureau of Economic Analysis.
** End of quarters, data source Bureau of Labor Statistics
Prepared by American Council for Capital Formation, July 27, 2012.

Figure 2. Total Personal Income



Source: "Which States Have Best Income Growth," The Wall Street Journal, July 16, 2012, http://blogs.wsj.com/economics/2012/07/16/which-states-have-best-income-growth/

Table 1. Investment Heroes: Top 25 Nonfinancial Companies by U.S. Capital Expenditure*

Rank	Company	U.S. Capital Expenditures ($bns)
1	AT&T**	**20.1**
2	Verizon Communications**	**16.2**
3	Exxon Mobil	**11.7**
4	Wal-Mart	**8.2**
5	Intel	**7.4**
6	Occidental Petroleum	**6.2**
7	ConocoPhillips	**5.6**
8	Comcast**	**5.3**
9	Chevron	**4.8**
10	Southern Company**	**4.5**
11	Hess	**4.4**
12	Exelon**	**4.0**
13	Ford Motor	**3.9**
14	General Electric	**3.7**
15	Enterprise Product Partners**	**3.6**
16	Sprint Nextel**	**3.1**
17	Walt Disney	**3.0**
18	FedEx	**2.9**
19	Time Warner Cable**	**2.9**
20	General Motors	**2.8**
21	Target	**2.5**
22	IBM	**2.5**
23	Chrysler Group	**2.5**
24	Google	**2.2**
25	Apple	**2.0**
Total		**136.2**

*Universe includes nonfinancial Fortune 150 companies from 2011; financial reporting from FY11
**Reported to have U.S. operations only; may include a small amount of non-U.S. investment

Source: Company financial reports & filings for FY2011 and PPI estimates. Total includes capital expenditures in plants, property, and equipment, and investment in exploration for energy companies. Totals do not include R&D.

Table 2 **Economic Impact on the United States of Switching to a Consumption Tax in 1991**
Expensing business investment, removal of the business and personal interest deduction, and tax exemption of savings

	Average 1991–1995	Average 1996–2000	Average 2001–2004
Real GDP—level (billions of 96$)			
Base	7,085.8	8,499.6	10,113.1
Simulation of consumption tax	7,203.2	8,890.0	10,637.7
(Difference in level)	117.5	390.5	524.6
(Percent change in level)	1.7%	4.6%	5.2%
Business capital spending, total (billions of 96$)			
Base	684.2	1,092.0	1,599.6
Simulation of consumption tax	824.9	1,495.6	2,168.8
(Difference in level)	140.7	403.5	569.2
(Percent change in level)	20.6%	37.0%	35.6%
Consumption (billions of 96$)			
Base	4,761.7	5,717.2	6,746.3
Simulation of consumption tax	4,773.3	5,843.4	7,021.5
(Difference in level)	11.6	126.1	275.3
(Percent change in level)	0.2	2.2	4.1
S&P 500 Price Index			
Base	449.1	1081.9	1803.2
Simulation of consumption tax	557.4	1370.5	2123.4
Difference	108.4	288.6	320.2
(Percent difference in level)	24.1%	26.7%	17.8%
Employment (millions of persons)			
Total payrolls, base	111.8	125.8	138.5
Total payrolls, simulation of consumption tax	111.8	129.3	140.9
(Difference in level)	0.0	3.6	2.4
Productivity (annual percent change)			
Nonfarm business, base	1.5	2.7	2.3
Nonfarm business, simulation of consumption tax	2.6	2.8	2.8
Difference	1.1	0.1	0.5
Total federal tax receipts			
Base	6,210.5	8,853.2	9,179.3
Simulation of consumption tax	5,745.5	8,821.0	9,607.7
(Difference in level)	-465.0	-32.2	428.5

Source: See Margo Thorning, "U.S. Capital Formation: How the U.S. Tax Code Discourages Investment", http://www.ipi.org/ipi_issues/detail/us-capital-formation-how-the-us-tax-code-discourages-investment using data from Allen Sinai, "Macroeconometric Model Simulation With the Sinai-Boston Model of the U.S. Economy," unpublished study, 2001.